

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

August 15, 2017

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HAI Project No. 2708
DEQ ECSI File No. 84

**SUBJECT: Progress Report, NW Natural Site, 7900 NW St. Helens Avenue and
7200 NW Front Avenue, Portland, Oregon**

Mr. Bayuk:

Hahn and Associates, Inc. (HAI) has prepared this monthly Progress Report to summarize Remedial Investigation/Feasibility Study (RI/FS) and source control-related work activities conducted by NW Natural relating to historic manufactured gas plant (MGP) activities at the NW Natural Site during the month of July 2017. NW Natural is completing upland investigation and cleanup activities at the NW Natural Site under the Voluntary Agreement No. ECV-C-WMCVC-NWR-94-13 (Voluntary Agreement) between NW Natural and the Oregon Department of Environmental Quality (DEQ).

**1. ACTIONS TAKEN UNDER THE VOLUNTARY AGREEMENT DURING
THE PREVIOUS MONTH**

The pumps for automated DNAPL recovery wells MW-6-32 and MW-13-30 were removed on July 5, 2017 so that DNAPL thickness measurements could be made and so that samples of DNAPL from each well location could be collected for analysis consistent with other DNAPL testing completed as part of the FS Data Gap Investigation activities at the site.

Soil gas and undisturbed soil core sample locations, installed as part of the FS Data Gaps Investigation between March and June, were surveyed on July 6, 2017.

NW Natural coordinated with a vac-truck service during July (work conducted July 6, 2017 and July 31, 2017) in an effort to evacuate the casing of the suspected former Gasco water supply well of loose debris. The objective of this work was to determine the nature of the material encountered at a depth of 12.2 feet bgs within the casing of this feature. After completion of the work on July 31, 2017 the casing had been cleared of debris to a depth of approximately 37 feet bgs, at which point dense substrate that could not be penetrated.

Tasks related to maintenance of the HC&C system and the groundwater treatment system were conducted in July 2017, with the system operating in full long-term operational mode.

A total of 10,301,126 gallons of water were treated in the on-site groundwater treatment plant and discharged during July 2017. Discharged water met all effluent criteria set by the facility's NPDES permit.

Baseline DNAPL removal as needed to maintain levels below the top of the well sumps was conducted by Anchor QEA during July 2017 in the following wells near the river shoreline.

- PW-11U
- MW-26U
- MW-27U
- MW-38U
- MW-PW2L
- PW-2L
- PW-2L
- PW-6U
- PW-11U

2. ACTIONS SCHEDULED TO BE TAKEN IN THE NEXT MONTH

NW Natural and DEQ technical working group communications and meetings will occur as needed within the next month to discuss ongoing project tasks.

Preparation of the RI/RA Addendum for the northern portion of the Siltronic property will continue during the indicated timeframe.

Rehabilitation work as related to HC&C system pumping wells (CO2 injections) will occur during August (initiated the week of August 7, 2017).

Routine baseline DNAPL measurements and removal will continue as needed to maintain levels below the top of the well sumps in nearshore HC&C-related wells.

It is expected that NW Natural will use a down-hole video camera during August to document the interior condition and nature of the hard substrate encountered during the recent vacuum excavation work at a depth within the steel casing of the suspected former Gasco water supply well.

Profiling (new vendor) for disposal of the oil / water mixture recovered from wells MW-6 and MW-13 will be completed in August 2017.

The following upland FS related tasks will be in progress:

- Outdoor air sampling activities, to be completed based on DEQ comments from review of the May 2016 *Gasco Uplands Data Gaps Investigation Work Plan* and subsequent communications, are expected to occur after receipt of DEQ approval of methods and locations.
- Fill WBZ monitoring well installations proposed as part of the DNAPL Mobility FS Data Gap Investigation Work and to be designated as MW-43F, MW-44F, and MW-45F are anticipated to occur during August (completed August 8 and 9, 2017). DNAPL samples will be collected for laboratory testing if DNAPL enters any of the newly installed wells in sufficient volume.
- Laboratory data validation will continue during August 2017.

3. LABORATORY TEST RESULTS RECEIVED DURING THE PREVIOUS MONTH

NW Natural receives test results on a regular basis as a result of routine monitoring related to groundwater quality or as specified by various permit requirements. Additionally, test results are periodically received through implementation of task-specific investigation activities resulting from agency-approved work plans. These data are provided to DEQ or the permitting authority (if different than DEQ) in accordance with previously-approved formats and schedules.

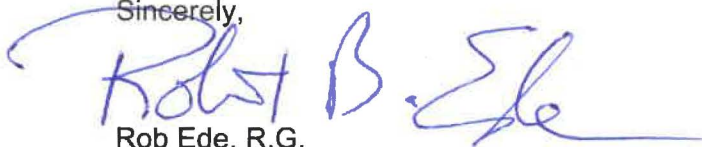
Some of the final lab reports from the DEQ-approved Upland Feasibility Study Data Gaps Investigation (soil, groundwater, soil gas, and DNAPL data) have been received during the previous month and are in validation. A meeting to preview preliminary draft data related to these investigation tasks was conducted with DEQ on July 11, 2017.

4. PROBLEMS EXPERIENCED DURING THE PREVIOUS MONTH

There were no problems of significance experienced during the previous month.

Should you have any questions, please contact the undersigned.

Sincerely,



Rob Ede, R.G.
Principal

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